

AMENDMENTS TO THE CLAIMS

1-73. (Canceled).

74. (Currently Amended) An isolated antibody specific for ~~that binds to~~ a mammalian Presenilin protein ~~having~~, wherein said mammalian Presenilin protein comprises an amino acid sequence as depicted in SEQ ID NOs: 2, 4, ~~or 134, 136, or 138~~.

75. (Currently amended) The antibody as defined in claim 74, which binds to ~~is specific for~~ ~~an amino acid sequence of~~ at least six contiguous amino acid residues of SEQ ID NOs: 2, 4, ~~or 134, 136, or 138; or antigenic fragments.~~

76. (Currently Amended) The antibody as defined in claim 75, wherein the antibody ~~is specific for~~ binds to ~~an amino acid sequence selected from the group consisting of~~ amino acid residues 30-44, 109-123, 304-318, and ~~or~~ 346-360 of SEQ ID NO:2 ~~SEQ ID NOs:2 or 134~~.

77. (Previously presented) The antibody as defined in claim 74, which is a monoclonal antibody.

78. (Previously presented) The antibody as defined in claim 74, which is a humanized antibody.

79. (Currently amended) A hybridoma for producing the antibody as defined in claim 74 77.

80. (Withdrawn, currently amended) A method for detecting the presence of a mammalian Presenilin protein in a biological sample, the method comprising:

- (i) contacting the biological sample with ~~an~~ the antibody as defined in claim 74,
- (ii) incubating the sample and the antibody under conditions to induce binding of the antibody to the sample to form a complex,

- (iii) separating the complex from the sample, and
- (iv) detecting the complex.

81. (Withdrawn, currently amended) The method as defined in claim 80, wherein the antibody is specific for binds to an amino acid sequence selected from the group consisting of amino acid residues 30-44, 109-123, 304-318, or and 346-360 of SEQ ID NO:2 SEQ ID NOS: 2 or 134.

82. (New) The antibody as defined in claim 74, which antibody is raised against an antigenic peptide of either one of SEQ ID NO: 2 and SEQ ID NO:134.

83. (New) The antibody as defined in claim 82, wherein the peptide comprises at least one amino acid sequence selected from the group consisting of amino acid residues 30-44, 109-123, 304-318, and 346-360 of SEQ ID NO:2.

84. (New) An isolated antibody raised against a mammalian Presenilin protein or an antigenic fragment thereof, wherein the mammalian Presenilin protein comprises an amino acid sequence as depicted in SEQ ID NOs: 2, 4, or 134.

85. (New) The antibody as defined in claim 84, which is a monoclonal antibody.

86. (New) The antibody as defined in claim 84, which is a polyclonal antibody.

87. (New) The antibody as defined in claim 84, which is a humanized antibody.

88. (New) A hybridoma for producing the antibody as defined in claim 85.